

CHANGES RELATED TO THE NEED TO REGULATE ADDITIONAL CONTAMINANTS (Section 63)

Note: Strike through language is proposed to be deleted from Board Order AM-34-02 as adopted on April 22, 2003. Underlined language is proposed to be added to Board Order AM-34-02 as adopted on April 22, 2003.

NR 445.13 Review of hazardous air contaminant requirements. (1) PERIODIC REPORTS. ~~(a)~~

~~Beginning 3 years after the effective date of this section... [revisor inserts date] and no later than every 3 years thereafter, the~~ The department, in consultation with the department of health and family services, shall prepare a periodic report for the natural resources board that reviews information related to listing, de-listing, and setting regulatory thresholds, standards and control requirements for hazardous air contaminants under this chapter.

~~(b) Beginning 6 years after the effective date of this section... [revisor inserts date] and no later than every 6 years thereafter, the department, in consultation with the department of health and family services, shall prepare a report for the natural resources board that includes~~ The report shall include all of the following:

~~1.(a)~~ A review of available information about the likely sources of emissions of and an assessment of whether the criteria set forth in sub. (2)(b) are likely to apply to the hazardous air contaminants identified under ~~par.~~ ~~(a)~~ this subsection.

~~2.(b)~~ Recommendations on the need for rule modifications.

~~3.(c)~~ Recommendations on the need for special studies.

(2) REVISION OF TABLE LISTS. (a) The department shall determine that a substance is a hazardous air contaminant that may be listed in Table A, B or C of s. NR 445.07 if the substance can, due to inhalation, cause an adverse health effect and it meets one or more of the following conditions:

1. The substance is classified as a known carcinogen or reasonably anticipated to be carcinogenic by both the International Agency for Research on Cancer and the National Toxicology Program.

2. The substance has a threshold limit value established by the American Conference of Governmental Industrial Hygienists.

3. The substance has a reference concentration established by the United States environmental protection agency with an uncertainty factor of 300 or less.

(b) ~~The~~ Excepted as provided for in pars. (c) and (d), the department shall list in Table A, B or C of s. NR 445.07 a substance determined under par. (a) to be a hazardous air contaminant if it also determines that none of the following apply to the contaminant:

1. The only critical inhalation effect listed for the substance by the American Conference of Governmental Industrial Hygienists is asphyxiation.

2. The substance possesses an explosive nature requiring safety procedures that preclude ambient concentrations that would present toxicity concerns.

3. The substance has a threshold limit value of greater than or equal to 100 parts per million.

4. The substance has a threshold limit value of greater than or equal to 10 milligrams per cubic meter.

(c) ~~The~~ Paragraph (b) notwithstanding, department may consider any of the following in determining whether to list a hazardous air contaminant in Table A, B or C of s. NR 445.07:

1. Other regulations that may provide adequate protection for public health or welfare.

2. That additional information is necessary to fully assess the need to list the hazardous air contaminant in Table A, B or C.

(d) Paragraph (b) notwithstanding, the department shall consider all of the following in determining whether to list a hazardous air contaminant in Table A, B or C of s. NR 445.07:

1. An evaluation of sources in Wisconsin that release, or are likely to release, the contaminant.

2. An evaluation of the expected population exposure to the contaminant and the related risks.

3. An evaluation of alternative control strategies, including emission limitations, that includes consideration of costs.

(3) REEVALUATION OF LISTING DECISION. The owner or operator of an affected source or other interested party may submit a written request to, and the department may, reevaluate a determination to list or not to list a substance as a hazardous air contaminant in this chapter. The request shall provide new or additional information for the department's consideration. In conducting a reevaluation, the department shall consider the criteria set forth in sub. (2)(b) and (c) and other information that it deems relevant.

NR 445.14 Hazardous air contaminant studies. (1) The department may conduct studies of individual substances or categories or sources of substances if it determines that unique complexities may warrant alternative approaches to those listed in this chapter, or if the department otherwise needs additional information to determine whether to list the contaminant in Table A, B or C of s. NR 445.07.

Note: Unique complexities may be the result of the nature of the emissions, the sources of emissions, the management of emissions or other factors. The studies will not include a re-evaluation of the classification of the substance as reported by the American Conference of Government Industrial Hygienists, the United States environmental protection agency, the International Agency for Research on Cancer, or the National Toxicology Program.

(2) The department staff shall, in consultation with affected industry, public health officials and other interested parties, undertake 2 separate studies of the emissions of amorphous and crystalline silica and wood dust. The studies shall evaluate the sources and amounts of emissions and alternative strategies for minimizing public health risks. The department staff shall report progress on the studies to the natural resources board by 24 calendar months after the effective date of this section... [revisor inserts date].

(3) The department shall evaluate the listing of substances added to this chapter on the effective date of this section... [revisor insert date] using the criteria set forth in s. NR 445.13(2)(d) prior to listing additional substances in Tables A, B or C of s. NR 445.07.

CHANGES RELATED TO EMISSIONS FROM COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES COMBUSTING FUEL OIL (Section 63)

Note: Strike through language is proposed to be deleted from Board Order AM-34-02 as adopted on April 22, 2003. Underlined language is proposed to be added to Board Order AM-34-02 as adopted on April 22, 2003.

NR 445.09 Fuel, control and compliance requirements for compression ignition internal combustion engines combusting fuel oil. (1) **APPLICABILITY.** This section applies to any compression ignition internal combustion engine that is capable of combusting fuel oil, except for any of the following:

- (a) An engine with rated brake power less than 100 horsepower.
- (b) An engine used to provide an essential service.
- (c) An engine used to power an emergency electric generator exempt under s. NR 406.04(1)(w) or 407.03(1)(u).

(d) An engine manufactured after the effective date of this section.... [revisor inserts date] installed to provide substitute power during maintenance or repair of a CI engine subject to sub. (3)(a), provided the substitute engine has a power rating equal to or less than the existing engine, operates less than 10 consecutive days per substitution and meets the fuel requirement in sub. (2).

(e) An engine that meets the fuel requirement in sub. (2) and is approved by US EPA to meet either of the following:

1. If purchased prior to January 1, 2011, the Tier 2 particulate emission standard for nonroad engines as found in 40 CFR Parts 9, 86 and 89.

2. If purchased on or after January 1, 2011, a particulate emission standard of 0.01 grams per brake horsepower-hour.

(2) FUEL REQUIREMENTS. Beginning no later than July 15, 2006, the owner or operator of a CI engine shall only combust fuel oil with a sulfur content no greater than the sulfur content that is allowed for on-road use at the time the fuel was purchased, when firing the engine with fuel oil.

Note: Federal Diesel Fuel Programs and Regulations can be found at: <http://www.epa.gov/otaq/regs/fuels/diesel/diesel.htm#regs>. As of the effective date of this section... [revisor inserts date], federal requirements state that beginning July 15, 2006, the sulfur content of diesel fuel at the terminal level will be 15 ppm or less.

(3) CONTROL REQUIREMENTS. (a) The owner or operator of a CI engine that stays, or that is intended to stay, in a single location for any 12 consecutive month period, and that combusts or intends to combust 10,000 gallons or more of fuel oil during that period of time, shall do one of the following as appropriate:

1. For an engine manufactured or last rebuilt prior to January 1, 1995, install, operate and maintain a control device that achieves at least 85% overall control of particulate matter emissions or a certified control device that has an overall level of particulate matter emission control that is great enough to ensure that one of the following emission rates is achieved:

- a. 0.10 grams per brake horsepower-hour for engines rated from 100 to 750 horsepower.
- b. 0.03 grams per brake horsepower-hour engines rated at greater than 750 horsepower.

2. For an engine manufactured or last rebuilt on or after January 1, 1995 and prior to July 1, 2006, install, operate and maintain a certified control device that has an overall level of control that is great enough to ensure that the applicable emission rate in subd. 1.a. or b. is achieved.

3. For an engine manufactured or last rebuilt on or after July 1, 2006 and prior to July 1, 2010, either control particulate matter emissions to a level that is the best available control technology or install, operate and maintain a certified control device that has an overall level of particulate matter emission control that is great enough to ensure that an emission rate of 0.03 grams per brake horsepower-hour is achieved.

4. For an engine manufactured or last rebuilt on or after July 1, 2010, either control particulate matter emissions to a level that is the best available control technology or install, operate and maintain a certified control device that has an overall level of particulate matter emission control that is great enough to ensure that an emission rate of 0.01 grams per brake horsepower-hour is achieved.

Note: Upon request the department will provide information on the availability of control technology to meet the requirements ~~in this paragraph.~~ par. (a) Contact ~~the Environmental Studies Section of~~ the Bureau of Air Management, 608-266-7718, for additional information.

(b) Paragraph (a) notwithstanding, the department may approve the use of an alternative or equivalent control method to any certified control device specified in par. (a)1., 2., 3. or 4.

(c) The owner or operator of a facility that conducts any testing involving the operation of an engine or group of engines subject to this section where the engine or engines combust, in the aggregate, 40,000 gallons or more of fuel oil in any 12 consecutive month period shall control particulate matter emissions from the facility from the engine or engines subject to this section to a level that is the best available control technology.

(4) COMPLIANCE DEMONSTRATION, NOTIFICATION REQUIREMENTS AND SCHEDULE. ~~(a) 1. Except as provided for in par. (a)3., an~~ owner or operator complying with an emission rate requirement in sub. (3)(a)1. or 2. shall achieve compliance and submit ~~all of the following information~~ in writing to the department no later than the last day of the thirty-sixth calendar month after the effective date of this section... [revisor inserts date] all of the information in subd. a. to L. A copy of the information shall also be maintained at the location where the engine is operated.

~~a1.~~ Company name, contact name, phone number and address of the owner or operator of the engine.

~~b2.~~ The location of the engine.

~~c3.~~ The name of the engine manufacturer.

~~d4.~~ The make, model and serial number of the engine.

~~e5.~~ The date the engine was manufactured or last rebuilt.

~~f6.~~ The maximum rated horsepower of the engine.

~~g7.~~ The date the control device was first put into operation

~~h8.~~ The name of the control device manufacturer.

~~i9.~~ The product or model name of the control device.

~~j10.~~ The manufacturer's performance warranty for the control device expressed as a particulate matter emission rate in grams per brake horsepower-hour.

~~k41.~~ The test method used by the manufacturer to determine the particulate matter emission rate in the manufacturer's performance warranty for the control device.

~~L42.~~ The certifying agency for the control device.

~~2.(b)~~ Except as provided for in par. (a)3., ~~In addition to meeting par. (a)1. to 9.,~~ an owner or operator complying with the 85% control requirement in sub. (3)(a)1. shall achieve compliance and submit in writing to the department no later than the end of the last day of the thirty-sixth calendar month after the effective date of this section... [revisor inserts date] the information in subd. 1.a. to i. and the results of an emission test conducted to demonstrate compliance with the requirement. A copy of the test results shall also be maintained at the location where the engine is operated.

3. Subdivisions 1. or 2. notwithstanding, an owner or operator of an engine manufactured or last rebuilt prior to the effective date of this section... [revisor inserts date] may, in lieu of meeting the applicable control requirement in sub. (3)(a)1. or 2., operate the engine until January 1, 2011 without a particulate matter control device, provided they do all of the following:

a. Submits in writing to the department no later than the last day of the thirty-sixth calendar month after the effective date of this section... [revisor inserts date] a statement relaying their intent to cease operating the engine before January 1, 2011 and the information in subd. 1.a. to f.

b. Cease operation of the engine no later than December 31, 2010.

c. Submits in writing to the department no later than January 31, 2011 a confirmation that the engine ceased operating on or before December 31, 2010.

~~(b)(e)~~ An owner or operator complying with an emission rate requirement in sub. (3)(a)3. or 4. shall achieve compliance and submit all of the information in par. (a)1. ~~to 12a. to L.~~ in writing to the department no later than 10 calendar days after startup. A copy of the information shall also be maintained at the location where the engine is operated.

~~(c)(4)~~ An owner or operator complying with the best available control technology requirement in sub. (3)(a)3. or 4., or a facility constructed or last modified after the effective date of this section... [revisor inserts date] subject to sub. (3)(c), shall submit information describing how the best available control technology requirement will be met in a permit application in accordance with s. NR 406.03. Compliance with the best available control technology requirement shall be achieved and demonstrated in accordance with the permit.

Note: Section NR 406.03 requires that owners or operators receive a construction permit prior to commencing operation of the source.

~~(d)~~~~(e)~~ The owner or operator of a facility constructed or last modified before the effective date of this section... [revisor inserts date] subject to sub. (3)(c) shall do both of the following:

1. Meet the schedule in s. NR 445.08(6)(c)1. and 2.

2. Submit information describing how the best available control technology requirement will be met on the application forms required for an operation permit, an amendment to an application, renewal of the operation permit, or for a significant revision under s. NR 407.13, as applicable.

~~(e)~~~~(f)~~ Any submission made under this subsection shall be signed by the responsible official designated by the owner or operator of source for this purpose, with a dated statement that the information submitted is accurate to the best of the responsible official's knowledge and belief and that all of the requirements of this section have been met.

Note: The address for submission of information to under pars. (a), and (b) ~~and (e)~~ is:

Wisconsin Department of Natural Resources
Bureau of Air Management
PO Box 7921
Madison WI 53707
Attention: Compression Ignition Engine Notification.

Application forms for pars. (c) and (d) ~~and (e)~~ may be obtained from, and submitted to:

Wisconsin Department of Natural Resources
Bureau of Air Management
PO Box 7921
Madison WI 53707
Attention: Construction Permit (or) Attention: Operation Permit (as appropriate).

(5) TEST METHODS AND PROCEDURES. (a) An owner or operator choosing to comply with the 85% control requirement of sub. (3)(a)1. shall, for each engine, comply with the requirements of ss. NR 439.06 and 439.07. The particulate matter emission reduction across a control device ~~is~~ shall be determined by the following equation:

$$\% \text{ reduction} = 100 \times (\text{baseline emissions} - \text{controlled emissions}) / (\text{baseline emissions})$$

(b) Testing under par. (a) shall be conducted prior to ~~initial notification under~~ the submission deadline in sub. ~~(4)(b)~~(a)2. Subsequent testing and notification shall be conducted whenever the particulate matter emission control device used to achieve the 85% emission reduction is replaced. The department shall be notified of the results of subsequent tests in writing no later than 60 calendar days after the completion of the test.

(6) RECORDKEEPING. In addition to meeting the recordkeeping requirements of s. NR 439.04(1) and (2), an owner or operator shall:

(a) Keep records of maintenance performed on any particulate matter emission control device used to comply with sub. (3).

(b) For any engine that stays or that is intended to stay in a single location for any 12 consecutive month period, keep the following records:

1. The amount of fuel oil combusted on a monthly basis for any engine not using a certified control device.
2. The power rating and days of operation of any CI engine used to substitute power under sub. (1)(d).
3. The cost of rebuilding any CI engine on a monthly basis.

CHANGES RELATED TO EMISSIONS FROM AGRICULTURAL FACILITIES AND LIVESTOCK OPERATIONS (Sections 7a (new), 11, 33a (new), 39, 40 and 63)

Note: Strike through language is proposed to be deleted from Board Order AM-34-02 as adopted on April 22, 2003. Underlined language is proposed to be added to Board Order AM-34-02 as adopted on April 22, 2003.

NR 445.02(1) "Agricultural waste" means livestock manure, wastewater contaminated with livestock manure, animal waste byproducts and litter and bedding material contaminated, derived or mixed with livestock manure.

NR 445.01(1)(a) Note: Owners and operators of sources of emissions of hazardous air contaminants associated with agricultural waste should refer to s. NR 445.08(6)(d) prior to undertaking any activities under this chapter.

NR 445.08(3)(c) The owner or operator of a source of emissions of hazardous air contaminants associated with agricultural waste shall be deemed in compliance with all requirements, limitations and conditions in this chapter provided best management practices, as approved by the department, for the handling of agricultural waste are implemented at the source.

NR 445.08(3)(c) Note: NR 445 was not developed with the purpose of regulating emissions of hazardous air contaminants associated with agricultural waste or byproducts. The department believes that using best

management practices is the preferred approach to regulate and control emissions from these type of sources.
Accordingly, the department intends to participate in the development of best management practices to regulate and control emissions from such sources within 36 months of the effective date of this section...[revisor inserts date].

NR 445.08(6) COMPLIANCE DEADLINES, RECORDKEEPING AND REPORTING REQUIREMENTS. (a) ~~The~~ Except as provided for agricultural waste in par. (d), the owner or operator of a source subject to an emission limitation or control requirement in s. NR 445.07 and constructed or last modified on or after the effective date of this section... [revisor inserts date] shall achieve compliance upon startup of the source.

(b) The owner or operator of a source constructed or last modified prior to the effective date of this section... [revisor inserts date] with non-exempt, potential to emit emissions of a hazardous air contaminant less than or equal to the applicable threshold in column (c), (d), (e) or (f) of Table A, B or C of s. NR 445.07 shall maintain records in accordance with s. NR 439.04(1) and (2) starting no later than the last day of the thirty-sixth calendar month after the effective date of this section... [revisor inserts date].

(c) ~~The~~ Except as provided for agricultural waste in par. (d), the owner or operator of a source constructed or last modified prior to the effective date of this section... [revisor inserts date] with non-exempt, potential to emit emissions of a hazardous air contaminant greater than the applicable threshold in column (c), (d), (e) or (f) of Table A, B or C of s. NR 445.07 or subject to s. NR 445.07(4) shall do all of the following:

1. Submit information no later than the last day of the eighteenth calendar month after the effective date of this section... [revisor inserts date] in accordance with procedure in sub. (7)(a) adequate to describe how applicable control requirements in s. NR 445.07(1)(c), (2), (3) or (4) or 445.09(3) will be met. ~~no later than the last day of the eighteenth calendar month after the effective date of this section... [revisor inserts date] in accordance with procedure in sub. (7)(a).~~

2. Achieve compliance with applicable emission limitations and control requirements in accordance with s. NR 445.08(1) and (2) no later than the last day of the thirty-sixth calendar month after the effective date of this section... [revisor inserts date].

3. Submit the required information in accordance with sub. (7).

(d)1. The owner or operator of a source with emissions of hazardous air contaminants associated with agricultural waste and constructed or last modified on or after thirty-six calendar months after the effective date of

this section... [revisor inserts date] shall achieve compliance with any applicable requirements in s. NR 445.07 in accordance with s. NR 445.08(1) and either s. NR 445.08(2) or (3)(c).for the agricultural waste upon startup of the source

2. Emissions of hazardous air contaminants associated with agricultural waste from a source constructed or last modified prior to thirty-six calendar months after the effective date of this section... [revisor inserts date] are exempt from the requirements in this chapter until thirty-six calendar months after the effective date of this section... [revisor inserts date]. Subsequently, the owner or operator of the source shall do both of the following if non-exempt, potential to emit emissions of a hazardous air contaminant from agricultural waste are greater than an applicable threshold in column (c), (d), (e) or (f) of Table A of s. NR 445.07:

a. Achieve compliance with applicable requirements in s. NR 445.07 in accordance with s. NR 445.08(1) and either s. NR 445.08(2) or (3)(c) no later than the last day of the forty-eighth calendar month after the effective date of this section... [revisor inserts date].

b. Submit the required information in accordance with sub. (7)(b).

NR 406.04(3)(e) For the purposes of determining emissions under sub. (2)(f), the owner or operator of a source is not required to consider emissions of hazardous air contaminants associated with agricultural waste prior to the last day of the thirty-sixth calendar month after the effective date of this section... [revisor inserts date].

NR 407.03(2)(d) The maximum theoretical emissions from the source for any hazardous air contaminant listed in Table 1, 2, 3, 4 or 5 A, B or C of s. NR 445.04 s. NR 445.07 do not exceed the emission rate listed in the table for the hazardous air contaminant for the respective stack height. For the purposes of determining emissions under this paragraph, the owner or operator of a source is not required to consider emissions of hazardous air contaminants associated with agricultural waste prior to the last day of the thirty-sixth calendar month after the effective date of this section... [revisor inserts date].